

REMARKS

I. Status of Claims

Claims 1-6 and 9 are currently pending in this application. Claims 1-6 and 9 stand rejected under 35 U.S.C. § 103 as being anticipated by GB Patent No. 1,503,723 (“GB ‘723”). Claims 1-6 and 9 stand rejected under 35 U.S.C. § 103(a) as being obvious over GB ‘723.

II. Amendments to the Claims

Applicants have amended claim 1 to clarify the invention. No new matter is presented.

III. GB ‘723 Does Not Teach the Same Process of Producing Menthol.

GB ‘723, teaches a catalyst that has a substantial fraction of its reactive surfaces inactivated by treating the catalyst with a modifier to be stereo selective for producing l-menthol. The catalyst can be pretreated with one of multiple metal-containing modifiers prior to use (GB ‘723, page 5 lines 13-16; Claims 1, 6 and 7, page 11) or may be added to the feedstock for *in situ* deactivation. (GB ‘723, page 5 lines 51-52; Claim 8 page 11). The listed modifier compounds tend to deactivate the most reactive surfaces as confirmed by a detectable decrease in the reaction rate following addition of the modifier. (GB ‘723, page 5 lines 64 to page 6 line 2).

In direct contrast to GB ‘723, the claimed invention in the present invention does not use a catalyst that has been deactivated by pretreatment or *in situ* contact with a deactivating solution. Instead, the present invention incorporates the claimed metals into the active catalyst to produce an overall increase in menthols. Such a process effect is not taught or suggested by GB ‘723.

In addition, GB ‘723 uses reaction temperatures within a range of 25° to 75 °C. (pages 6-8, and Table 1).

The present claims require operating temperatures from 80° to 230 °C. The use of such temperatures is neither taught nor suggested by GB ‘723.

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IV. GB '723 Does Not Teach The Same Type of Catalyst.

In GB '723 the catalyst is a Raney Nickel, which contains both nickel and aluminum that has a substantial fraction of its reactive surfaces inactivated by treating the catalyst with a modifier.

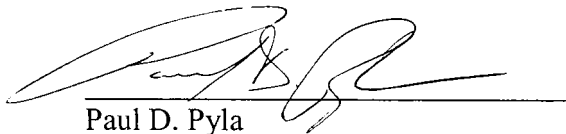
The catalyst does not have chromium or iron as in the claimed process. If any chromium or iron-based modifiers are used, whether and how much might become deposited on the catalyst is not disclosed.

The present claims require a catalyst composition having both iron and chromium individually present in 0.1-20 wt. %. Such a concentration is not taught or suggested by GB "723.

V. Conclusion

In view of the above, it is believed that the above-identified application is in condition for allowance, and notice to that effect is respectfully requested. Should the Examiner have any questions, the Examiner is encouraged to contact the undersigned at the telephone number indicated below.

Respectfully submitted,



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